

## CLAIMS

1. A clamp mechanism of a throwaway tip for pressing a throwaway tip, in which a fitting hole is formed through a tip body, by the use of a head portion of a clamp member having a shaft portion inserted into the fitting hole and the head portion with an outer diameter larger than that of the shaft portion and thus clamping the throwaway tip to a tip fitting seat by allowing the clamp member to advance toward the tip fitting seat of a tool body in the central axis direction of the shaft portion,

wherein in the clamp member, a section, which is perpendicular to the central axis direction, of the back surface of the head portion has a circle shape centered at the central axis line, and

wherein in the tip body of the throwaway tip, the head portion of the clamp member can pass through the fitting hole, and a contact portion with which a part of the back surface of the head portion comes in contact when the clamp member is allowed to advance is formed in an opening of the fitting hole.

2. The clamp mechanism according to Claim 1, wherein the contact portion of the tip body has a crescent shape which is convex from the inner circumference of the fitting

hole toward the outer circumference as seen in the direction along the center line of the fitting hole.

3. The clamp mechanism according to Claim 1 or 2,  
5 wherein the central axis line of the clamp member is tilted with respect to the center line of the fitting hole.

4. The clamp mechanism according to Claim 3, wherein a portion, which is located in a plane including the central  
10 axis line of the clamp member and the center line of the fitting hole, of the contact portion is more convex in the direction along the central axis line than other portions.

5. The clamp mechanism according to Claim 3 or 4,  
15 wherein a plurality of the fitting holes having the center lines parallel to each other is formed in the tip body, a plurality of the clamp members corresponding to the fitting holes is provided in the tool body, and the central axis  
lines of the clamp members extend in a parallel direction or  
20 in a direction intersecting each other at an intersection angle of 5° or less as seen in the direction along the center lines.

6. The clamp mechanism according to any one of Claims  
25 3 to 5, wherein a plurality of the fitting holes having the

center lines parallel to each other is formed in the tip  
body, a plurality of the clamp members corresponding to the  
fitting holes is provided in the tool body, a mark  
indicating an order of allowing the clamp members to advance  
5 toward the tip fitting seat is provided in the tip body.

7. The clamp mechanism according to any one of Claims  
1 to 6, wherein a screw portion inserted into the tool body  
is provided at the end of the shaft portion opposite to the  
10 head portion in the clamp member, and the clamp member is  
allowed to advance toward the tip fitting seat while  
rotating around the central axis line over the whole  
circumference.

15 8. The clamp mechanism according to any one of Claims  
1 to 7, wherein a large-diameter portion having an outer  
diameter larger than that of the fitting hole is provided at  
the end of the shaft portion opposite to the head portion in  
the clamp member.